

### **REMARKS**

Reconsideration of the instant application is respectfully requested. The present submission is submitted in conjunction with a Request for Continued Examination (RCE) and is responsive to the Final Office Action of April 23, 2007, in which claims 1-7 and 9-20 are presently pending. Claims 1, 4-12 and 14-20 remain rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

With regard to the art of record, claims 1-5, 10 and 11 remain rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,225,011 to Gotoh, et al., in view of U.S. Patent 6,347,291 to Berman. Claims 6, 9, 12-16 and 18-20 remain rejected under U.S.C. §103(a) as being unpatentable over Gotoh, in view of Berman, and further in view of U.S. Patent 6,801,825 to Utsonomyia.

In addition, claim 7 is now rejected under U.S.C. §103(a) as being unpatentable over Gotoh, in view of Berman, and further in view of U.S. Patent 4,327,292 to Wang, et al. Finally, claim 17 is now rejected under U.S.C. §103(a) as being unpatentable over Gotoh, in view of Berman and Utsonomyia, and further in view of Wang. For the following reasons, it is respectfully submitted that the application is now in condition for allowance.

On July 13, 2007, a telephone interview was conducted between the Examiner and the undersigned to discuss both the §101 rejections and §103 rejections. Applicants now address those rejections as set forth below.

#### **§101 rejections**

Turning first to the §101 rejections, Applicants direct the Examiner's attention to the following portions of the specification, which set forth a practical application of the claimed invention embodiments:



“The present invention provides a more robust alignment routine that saves time and provides a path to auto correct the alignment routine should it fail during operation.” (Specification, paragraph [0020])

In addition, paragraphs [0034] and [0035] of the specification, further point out that:

“The above described embodiments allow the use of the point of interest as a starting point and have the alignments selected automatically by recognition software. In this manner, setting up alignment routines is eliminated. It also provides a path to automatically correct the alignment routine should it fail during operation, since no point of origin or reference point needs to be established first. Further, separately providing designated alignment marks and initially locating the same is avoided.

In summary, the above described alignment routine allows the user to first move to or locate a first point of interest and supply or define a step periodicity. The software performs a raster movement around the first point of interest until it detects a feature unique within the field of view. Once a unique feature is found and saved, the system moves over the defined periodicity to locate the same unique feature in a second point of interest thereby completing the alignment routine. This alignment routine requires at least two sites to determine part position. In this manner, alignment marks are not necessary and alignment with respect to the same is eliminated.”

Accordingly, since the Applicants have asserted in the specification a “specific and substantial utility” for the claimed subject matter from the standpoint of one skilled in the art, it is respectfully submitted that the present §101 rejections should be withdrawn. MPEP 2107 (II)(B).



### §103 rejections

With respect to the §103 rejections, the Examiner has indicated the following in the Final Office Action (in response to Applicants' previous arguments that Gotoh's teachings are directed toward correction of distortion of a pattern exposed by an optical exposure system, as opposed to automatic alignment of a wafer during semiconductor fabrication):

(1) the claim limitation "determining substrate position relative to the exposure system from alignment data of at least the first and second scanned areas" does not exclude alignment data gathered from scanning two alignment marks that are in the scanned area of the distortion marks; (2) the claim limitations disposing, locating, scanning a first area, defining a periodicity, locating a second point of interest, and scanning a second area proximate the second point of interest does not preclude an alignment routine for the exposure beam to the wafer; and (3) the claim limitations gathering alignment data from at least scanning the first and second areas does not preclude gathering alignment data from either scanning area comprising both distortion and alignment marks for either substrate alignment or exposure beam alignment.

Accordingly, independent claims 1 and 12 have been amended as set forth above to more particularly point out that the claimed operations of locating first and second points of interest, scanning first and second areas proximate the first and second points of interest, and gathering alignment data therefrom all take place on the same patterned substrate. Support for the present amendment is found at least in paragraphs [0028]-[0033] of the specification and in Figures 4-8 of the drawings.

Thus amended, the claims now define over Gotoh, which teaches locating points of interest and gathering alignment data from two different alignment routines (i.e., marks to detect optical mask distortion and alignment marks to detect substrate alignment).




Therefore, because neither Gotoh nor any of the other reference[s] of record teach each and every element of the pending claims, as now amended, the claims are not rendered obvious by the same, and it is respectfully submitted that the claims are now patentable over the references of record.

For the above stated reasons, it is respectfully submitted that the present application is now in condition for allowance. No new matter has been entered and no additional fees are believed to be required. However, if any fees are due with respect to this Amendment, please charge them to Deposit Account No. 09-0458 maintained by Applicant's attorneys.

Respectfully submitted,  
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